

ABSTRACT OF THE DISCLOSURE

An optical transmitter transmits a light which alternately exhibits a spectrum line width wider than a Brillouin bandwidth and a spectrum line width narrower than the Brillouin bandwidth. The transmitted light is provided to an optical transmission line so that the transmitted light travels in the transmission line and thereby causes returning light to be generated in the transmission line. An optical detecting section detects the returning light. Disconnection of the transmission line is detected from the detected returning light.